

SEQUENCE LISTING

<110> Grainger, David J.
Tatalick, Lauen Marie

<120> Compounds and methods to inhibit or
augment an inflammatory response.

<130> 295.022US1

<140> US 08/927939

<141> 1997-09-11

<160> 83

<170> FastSEQ for Windows Version 3.0

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 Thr Cys Cys Tyr Asn Phe Thr Asn Arg Lys Ile Ser Val Gln Arg Leu
 35 40 45
 Ala Ser Tyr Arg Arg Ile Thr Ser Ser Lys Cys Pro Lys Glu Ala Val
 50 55 60
 Ile Phe Lys Thr Ile Val Ala Lys Glu Ile Cys Ala Asp Pro Lys Gln
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 85 90 95
 Pro Lys Thr

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 35 40 45
 Gly Lys Glu Val Cys Ala Asp Pro Lys Glu Arg Trp Val Arg Asp Ser
 50 55 60
 Met Lys His Leu Asp Gln Ile Phe Gln Asn Leu Lys Pro
 65 70 75

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 20 25 30
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 35 40 45
 Glu Ser Tyr Arg Arg Thr Thr Ser Ser His Cys Pro Arg Glu Ala Val
 50 55 60
 Ile Phe Lys Thr Lys Leu Asp Lys Glu Ile Cys Ala Asp Pro Thr Gln
 65 70 75 80
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 85 90 95
 Pro Lys Leu

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<400> 19

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			20					25					30		
Cys	Cys	Phe	Ser	Tyr	Thr	Ser	Arg	Gln	Ile	Pro	Gln	Asn	Phe	Ile	Ala
		35					40					45			
Asp	Tyr	Phe	Glu	Thr	Ser	Ser	Gln	Cys	Ser	Lys	Pro	Gly	Val	Ile	Phe
	50					55					60				
Leu	Thr	Lys	Arg	Ser	Arg	Gln	Val	Cys	Ala	Asp	Pro	Ser	Glu	Glu	Trp
65					70					75					80
Val	Gln	Lys	Tyr	Val	Ser	Asp	Leu	Glu	Leu	Ser	Ala				
				85				90							

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Phe	Cys	Ser	Pro	Ala	Leu	Ser	Ala	Pro	Met	Gly	Ser	Asp	Pro	Pro	Thr
			20					25					30		
Ala	Cys	Cys	Phe	Ser	Tyr	Thr	Ala	Arg	Lys	Leu	Pro	Arg	Asn	Phe	Val
		35					40					45			
Val	Asp	Tyr	Tyr	Glu	Thr	Ser	Ser	Leu	Cys	Ser	Gln	Pro	Ala	Val	Val
	50					55					60				
Phe	Gln	Thr	Lys	Arg	Ser	Lys	Gln	Val	Cys	Ala	Asp	Pro	Ser	Glu	Ser
65					70					75					80
Trp	Val	Gln	Glu	Tyr	Val	Tyr	Asp	Leu	Glu	Leu	Asn				
				85				90							

<210> 21
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<400> 21

Met	Lys	Val	Ser	Ala	Ala	Arg	Leu	Ala	Val	Ile	Leu	Ile	Ala	Thr	Ala
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Leu	Cys	Ala	Pro	Ala	Ser	Ala	Ser	Pro	Tyr	Ser	Ser	Asp	Thr	Thr	Pro
			20					25					30		
Cys	Cys	Phe	Ala	Tyr	Ile	Ala	Arg	Pro	Leu	Pro	Arg	Ala	His	Ile	Lys
		35					40					45			
Glu	Tyr	Phe	Tyr	Thr	Ser	Gly	Lys	Cys	Ser	Asn	Pro	Ala	Val	Val	Phe

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 Val Thr Arg Lys Asn Arg Gln Val Cys Ala Asn Pro Glu Lys Lys Trp
 65 70 75 80
 Val Arg Glu Tyr Ile Asn Ser Leu Glu Met Ser
 85 90

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<400> 22
 Met Asn Ala Lys Val Val Val Val Leu Val Leu Val Leu Thr Ala Leu
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 Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys
 20 25 30
 Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys His Leu Lys
 35 40 45
 Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys
 50 55 60
 Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
 65 70 75 80
 Glu Tyr Leu Glu Lys Ala Leu Asn Lys
 85

<210> 23
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 <213> Homo sapiens

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 Met Thr Ser Lys Leu Ala Val Ala Leu Leu Ala Ala Phe Leu Ile Ser
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 Ala Ala Leu Cys Glu Gly Ala Val Leu Pro Arg Ser Ala Lys Glu Leu
 20 25 30
 Arg Cys Gln Cys Ile Lys Thr Tyr Ser Lys Pro Phe His Pro Lys Phe
 35 40 45
 Ile Lys Glu Leu Arg Val Ile Glu Ser Gly Pro His Cys Ala Asn Thr
 50 55 60
 Glu Ile Ile Val Lys Leu Ser Asp Gly Arg Glu Leu Cys Leu Asp Pro
 65 70 75 80
 Lys Glu Asn Trp Val Gln Arg Val Val Glu Lys Phe Leu Lys Arg Ala
 85 90 95
 Glu Asn Ser

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<400> 24
 Met Ala Arg Ala Ala Leu Ser Ala Ala Pro Ser Asn Pro Arg Leu Leu

Ser Glu Pro Thr Thr Leu Phe Lys Thr Ala Ser Ala Leu Arg Ser Ser
 100 105 110
 Ala Pro Leu Asn Val Lys Leu Thr Arg Lys Ser Glu Ala Asn Ala Ser
 115 120 125
 Thr Thr Phe Ser Thr Thr Thr Ser Ser Thr Ser Val Gly Val Thr Ser
 130 135 140
 Val Thr Val Asn
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 Cys Leu Asp Pro Lys Lys Glu Trp Ile Gln
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 Met Lys Val Ser Ala Val Leu
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 Leu Cys Leu Leu Leu Met Thr Ala Ala Phe Asn Pro Gln Gly Leu Ala
 10 15 20

cag cca gat gca ctc aac gtc cca tct act tgc tgc ttc aca ttt agc 150
 Gln Pro Asp Ala Leu Asn Val Pro Ser Thr Cys Cys Phe Thr Phe Ser
 25 30 35

agt aag aag atc tcc ttg cag agg ctg aag agc tat gtg atc acc acc 198
 Ser Lys Lys Ile Ser Leu Gln Arg Leu Lys Ser Tyr Val Ile Thr Thr
 40 45 50 55

agc agg tgt ccc cag aag gct gtc atc ttc aga acc aaa ctg ggc aag 246
 Ser Arg Cys Pro Gln Lys Ala Val Ile Phe Arg Thr Lys Leu Gly Lys
 60 65 70

gag atc tgt gct gac cca aag gag aag tgg gtc cag aat tat atg aaa 294
 Glu Ile Cys Ala Asp Pro Lys Glu Lys Trp Val Gln Asn Tyr Met Lys
 75 80 85

cac ctg ggc cgg aaa gct cac acc ctg aag act tgaactctgc taccctact 347

His Leu Gly Arg Lys Ala His Thr Leu Lys Thr
 90 95

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		Met Asn Ala	Lys Val	Val Val	Val Leu Val Leu	
		1	5		10	

gtg ctg acc	gcg ctc	tgc ctc	agc gac	ggg aag	ccc gtc	agc ctg	agc	160
Val Leu Thr	Ala Leu	Cys Leu	Ser Asp	Gly Lys	Pro Val	Ser Leu	Ser	
	15		20			25		

tac aga tgc	cca tgc	cga ttc	ttc ttc	gaa agc	cat gtt	gcc aga	gcc aac	208
Tyr Arg Cys	Pro Cys	Arg Phe	Phe Phe	Glu Ser	His Val	Ala Arg	Ala Asn	
	30		35			40		

gtc aag cat	ctc aaa	att ctc	aac act	cca aac	tgt gcc	ctt cag	att	256
Val Lys His	Leu Lys	Ile Leu	Asn Thr	Pro Asn	Cys Ala	Leu Gln	Ile	
	45		50		55			

gta gcc cgg	ctg aag	aac aac	aac aac	aga caa	gtg tgc	att gac	ccg aag	304
Val Ala Arg	Leu Lys	Asn Asn	Asn Asn	Arg Gln	Val Cys	Ile Asp	Pro Lys	
	60		65		70		75	

cta aag tgg	att cag	gag tac	ctg gag	aaa gct	tta aac	aag agg	ttc	352
Leu Lys Trp	Ile Gln	Glu Tyr	Leu Glu	Lys Ala	Leu Asn	Lys Arg	Phe	
	80		85			90		

aag atg tgagaggggc	agacgcctga	ggaaccctta	cagtaggagc	ccagctctga	408			
Lys Met								

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aaccttccgg	aagcctcccc	atcagcacc	atg aac cca	agt gct gcc gtc att		2093

Met Asn Pro Ser Ala Ala Val Ile

ttc tgc ctc atc ctg ctg ggt ctg agt ggg act	caa g gtaagggaca	2140
Phe Cys Leu Ile Leu Leu Gly Leu Ser Gly Thr	Gln	
10	15 20	
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	Gly Ile Pro	
ctc gca agg acg gtc cgc tgc aac tgc atc cat	atc gat gac ggg cca	2724
Leu Ala Arg Thr Val Arg Cys Asn Cys Ile His	Ile Asp Asp Gly Pro	
25	30 35	
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Val Arg Met Arg Ala Ile Gly Lys Leu Glu Ile	Ile Pro Ala Ser Leu	
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Ser Cys Pro Arg Val Glu Ile Ile		
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tgactctaac taaggcacag tgccctgaact ctgacatgga	cctgcagggc catcagctct	2945
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	Ala Thr Met	
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aaa aag aat gat gag cag aga tgt ctg aat ccg	gaa tct aag acc atc	3047
Lys Lys Asn Asp Glu Gln Arg Cys Leu Asn Pro	Glu Ser Lys Thr Ile	
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Lys Asn Leu Met Lys Ala Phe Ser Gln Lys Arg		
85	90	
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	Ser Lys Arg Ala Pro	
	95	

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acg	ctc	tcc	gcc	gcc	ccc	agc	aat	ccc	cgg	ctc	ctg	cgg	gtg	gcg	ctg	102
Thr	Leu	Ser	Ala	Ala	Pro	Ser	Asn	Pro	Arg	Leu	Leu	Arg	Val	Ala	Leu	
5					10					15					20	
ctg	ctc	ctg	ctc	ctg	gtg	gcc	gcc	agc	cgg	cgc	gca	gca	gga	gcg	ccc	150
Leu	Leu	Leu	Leu	Leu	Val	Ala	Ala	Ser	Arg	Arg	Ala	Ala	Gly	Ala	Pro	
				25					30					35		
ctg	gcc	act	gaa	ctg	cgc	tgc	cag	tgc	ttg	cag	acc	ctg	cag	gga	att	198
Leu	Ala	Thr	Glu	Leu	Arg	Cys	Gln	Cys	Leu	Gln	Thr	Leu	Gln	Gly	Ile	
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cac	ctc	aag	aac	atc	caa	agt	gtg	aag	gtg	aag	tcc	ccc	gga	ccc	cac	246
His	Leu	Lys	Asn	Ile	Gln	Ser	Val	Lys	Val	Lys	Ser	Pro	Gly	Pro	His	
		55					60					65				
tgc	gcc	caa	acc	gaa	gtc	ata	gcc	aca	ctc	aag	aat	ggg	cag	aaa	gct	294
Cys	Ala	Gln	Thr	Glu	Val	Ile	Ala	Thr	Leu	Lys	Asn	Gly	Gln	Lys	Ala	
	70					75					80					
tgt	ctc	aac	ccc	gca	tgc	ccc	atg	gtt	aag	aaa	atc	atc	gaa	aag	atg	342
Cys	Leu	Asn	Pro	Ala	Ser	Pro	Met	Val	Lys	Lys	Ile	Ile	Glu	Lys	Met	
85					90					95					100	

ctg aaa aat ggc aaa tcc aac tgaccagaag gaaggaggaa gcttattggt 393
Leu Lys Asn Gly Lys Ser Asn
105

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gcagaggcca cctggattgc gcctaattgtg tttgagcatc acttaggaga agtcttctat 513
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<211> 1173
<212> DNA
<213> Homo sapiens

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<222> (107)...(448)

<400> 32

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Met Ser Leu
1

ctg tcc agc cgc gcg gcc cgt gtc ccc ggt cct tcg agc tcc ttg tgc 163
Leu Ser Ser Arg Ala Ala Arg Val Pro Gly Pro Ser Ser Ser Leu Cys
5 10 15

gcg ctg ttg gtg ctg ctg ctg ctg ctg acg cag cca ggg ccc atc gcc 211
Ala Leu Leu Val Leu Leu Leu Leu Leu Thr Gln Pro Gly Pro Ile Ala
20 25 30 35

agc gct ggt cct gcc gct gct gtg ttg aga gag ctg cgt tgc gtt tgt 259
Ser Ala Gly Pro Ala Ala Ala Val Leu Arg Glu Leu Arg Cys Val Cys
40 45 50

tta cag acc acg cag gga gtt cat ccc aaa atg atc agt aat ctg caa 307
Leu Gln Thr Thr Gln Gly Val His Pro Lys Met Ile Ser Asn Leu Gln
55 60 65

gtg ttc gcc ata ggc cca cag tgc tcc aag gtg gaa gtg gta gcc tcc 355
Val Phe Ala Ile Gly Pro Gln Cys Ser Lys Val Glu Val Val Ala Ser
70 75 80

ctg aag aac ggg aag gaa att tgt ctt gat cca gaa gcc cct ttt cta 403

Leu	Lys	Asn	Gly	Lys	Glu	Ile	Cys	Leu	Asp	Pro	Glu	Ala	Pro	Phe	Leu	
85						90					95					

aag	aaa	gtc	atc	cag	aaa	att	ttg	gac	ggt	gga	aac	aag	gaa	aac		448
Lys	Lys	Val	Ile	Gln	Lys	Ile	Leu	Asp	Gly	Gly	Asn	Lys	Glu	Asn		
100					105					110						

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gtttccccag	tagttagctt	tcttccttgg	attcctcact	tttgaagagt	gtgaggaaaa		628
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aatatatttc	cttatttcaga	atttctaaaa	gtttaagttc	tatgagggtc	aatatcttat		1108
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 <212> DNA
 <213> Homo sapiens

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 <400> 33

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Leu	Cys	Leu	Leu	Leu	Met	Thr	Ala	Ala	Phe	Asn	Pro	Gln	Gly	Leu	Ala	
		10					15					20				

cag	cca	gat	gca	ctc	aac	gtc	cca	tct	act	tgc	tgc	ttc	aca	ttt	agc	150
Gln	Pro	Asp	Ala	Leu	Asn	Val	Pro	Ser	Thr	Cys	Cys	Phe	Thr	Phe	Ser	
	25				30					35						

agt	aag	aag	atc	tcc	ttg	cag	agg	ctg	aag	agc	tat	gtg	atc	acc	acc	198
Ser	Lys	Lys	Ile	Ser	Leu	Gln	Arg	Leu	Lys	Ser	Tyr	Val	Ile	Thr	Thr	
	40				45				50						55	

agc	agg	tgt	ccc	cag	aag	gct	gtc	atc	ttc	aga	acc	aaa	ctg	ggc	aag	246
Ser	Arg	Cys	Pro	Gln	Lys	Ala	Val	Ile	Phe	Arg	Thr	Lys	Leu	Gly	Lys	
				60				65					70			

gag	atc	tgt	gct	gac	cca	aag	gag	aag	tgg	gtc	cag	aat	tat	atg	aaa	294
Glu	Ile	Cys	Ala	Asp	Pro	Lys	Glu	Lys	Trp	Val	Gln	Asn	Tyr	Met	Lys	

75

80

85

cac ctg ggc cgg aaa gct cac acc ctg aag act tgaactctgc taccctact 347
 His Leu Gly Arg Lys Ala His Thr Leu Lys Thr

90

95

gaaatcaagc tggagtacgt gaaatgactt ttccattctc ctctggcctc ctcttctatg 407
 ctttgaata cttctaccat aattttcaaa taggatgcac tcggttttgt gattcaaaat 467
 gtactatgtg ttaagtaata ttggctatta ttgacttgt tgctggtttg gagtttattt 527
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 gtgaatgtga gggtgttgct aaattattgt ttattgtgga aagatgaatg caatagtagg 767
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<210> 34

<211> 3112

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1192)...(1267)

<221> CDS

<222> (1953)...(2067)

<221> CDS

<222> (2488)...(2575)

<400> 34

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 aatggctaca catatttcta ggcacctgac atactgacac ccacctctaa agtattttta 240
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 Met Gln

1

gtc tcc act gct gcc ctt gcc gtc ctc ctc tgc acc atg gct ctc tgc 1245
Val Ser Thr Ala Ala Leu Ala Val Leu Leu Cys Thr Met Ala Leu Cys
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Asn Gln Val Leu Ser Ala Pro
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Leu

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Ala Ala Asp Thr Pro Thr Ala Cys Cys Phe Ser Tyr Thr Ser Arg Gln
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Ile Pro Gln Asn Phe Ile Ala Asp Tyr Phe Glu Thr Ser Ser Gln Cys
45 50 55

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Ser Lys Pro Ser Val Ile
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Phe Leu Thr Lys Arg Gly Arg
65 70

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Gln Val Cys Ala Asp Pro Ser Glu Glu Trp Val Gln Lys Tyr Val Ser
75 80 85

gac ctg gag ctg agt gcc tgaggggtcc agaagcttcg aggcccagcg 2605
Asp Leu Glu Leu Ser Ala
90

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 <222> (55) ... (333)

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Lys	Ile	Ser	Val	Ala	Ala	Ile	Pro	Phe	Phe	Leu	Leu	Ile	Thr	Ile	Ala	
			5				10				15					
cta ggg acc aag act gaa tcc tcc tca cgg gga cct tac cac ccc tca															153	
Leu	Gly	Thr	Lys	Thr	Glu	Ser	Ser	Ser	Arg	Gly	Pro	Tyr	His	Pro	Ser	
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gag tgc tgc ttc acc tac act acc tac aag atc ccg cgt cag cgg att															201	
Glu	Cys	Cys	Phe	Thr	Tyr	Thr	Thr	Tyr	Lys	Ile	Pro	Arg	Gln	Arg	Ile	
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atg gat tac tat gag acc aac agc cag tgc tcc aag ccc gga att gtc															249	
Met	Asp	Tyr	Tyr	Glu	Thr	Asn	Ser	Gln	Cys	Ser	Lys	Pro	Gly	Ile	Val	
			50				55				60				65	
ttc atc acc aaa agg ggc cat tcc gtc tgt acc aac ccc agt gac aag															297	
Phe	Ile	Thr	Lys	Arg	Gly	His	Ser	Val	Cys	Thr	Asn	Pro	Ser	Asp	Lys	
			70				75				80					
tgg gtc cag gac tat atc aag gac atg aag gag aac tgagtgaccc															343	
Trp	Val	Gln	Asp	Tyr	Ile	Lys	Asp	Met	Lys	Glu	Asn					
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 <222> (67)...(450)

<400> 37

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      Met Ser Leu Arg Leu Asp Thr Thr Pro Ser Cys Asn Ser Ala
            1              5              10

aga cca ctt cat gcc ttg cag gtg ctg ctg ctt ctg tca ttg ctg ctg      156
Arg Pro Leu His Ala Leu Gln Val Leu Leu Leu Leu Ser Leu Leu Leu
      15              20              25              30

act gct ctg gct tcc tcc acc aaa gga caa act aag aga aac ttg gcg      204
Thr Ala Leu Ala Ser Ser Thr Lys Gly Gln Thr Lys Arg Asn Leu Ala
            35              40              45

aaa ggc aaa gag gaa agt cta gac agt gac ttg tat gct gaa ctc cgc      252
Lys Gly Lys Glu Glu Ser Leu Asp Ser Asp Leu Tyr Ala Glu Leu Arg
            50              55              60

tgc atg tgt ata aag aca acc tct gga att cat ccc aaa aac atc caa      300
Cys Met Cys Ile Lys Thr Thr Ser Gly Ile His Pro Lys Asn Ile Gln
            65              70              75

agt ttg gaa gtg atc ggg aaa gga acc cat tgc aac caa gtc gaa gtg      348
Ser Leu Glu Val Ile Gly Lys Gly Thr His Cys Asn Gln Val Glu Val
            80              85              90

ata gcc aca ctg aag gat ggg agg aaa atc tgc ctg gac cca gat gct      396
Ile Ala Thr Leu Lys Asp Gly Arg Lys Ile Cys Leu Asp Pro Asp Ala
            95              100              105              110

ccc aga atc aag aaa att gta cag aaa aaa ttg gca ggt gat gaa tct      444
Pro Arg Ile Lys Lys Ile Val Gln Lys Lys Leu Ala Gly Asp Glu Ser
            115              120              125

gct gat taatttggtc tgtttctgcc aaacttcttt aactcccagg aagggtagaa      500
Ala Asp

ttttgaaacc ttgattttct agagttctca tttattcagg atacctattc ttactgtatt      560
aaaatttgga tatgtgtttc attctgtctc aaaaatcaca ttttattctg agaaggttg      620
ttaaagatg gcagaaagaa gatgaaaata aataagcctg gtttcaaccc tct      673

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 Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
 1 5 10

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<220>
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 Met Lys Lys Ser Gly
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 Val Leu Phe Leu Leu Gly Ile Ile Leu Leu Val Leu Ile Gly Val Gln
 10 15 20

gga acc cca gta gtg aga aag ggt cgc tgt tcc tgc atc agc acc aac 150
 Gly Thr Pro Val Val Arg Lys Gly Arg Cys Ser Cys Ile Ser Thr Asn
 25 30 35

caa ggg act atc cac cta caa tcc ttg aaa gac ctt aaa caa ttt gcc 198
 Gln Gly Thr Ile His Leu Gln Ser Leu Lys Asp Leu Lys Gln Phe Ala
 40 45 50

cca agc cct tcc tgc gag aaa att gaa atc att gct aca ctg aag aat 246
 Pro Ser Pro Ser Cys Glu Lys Ile Glu Ile Ile Ala Thr Leu Lys Asn
 55 60 65

gga gtt caa aca tgt cta aac cca gat tca gca gat gtg aag gaa ctg 294
 Gly Val Gln Thr Cys Leu Asn Pro Asp Ser Ala Asp Val Lys Glu Leu
 70 75 80 85

att aaa aag tgg gag aaa cag gtc agc caa aag aaa aag caa aag aat 342
 Ile Lys Lys Trp Glu Lys Gln Val Ser Gln Lys Lys Lys Gln Lys Asn
 90 95 100

ggg aaa aaa cat caa aaa aag aaa gtt ctg aaa gtt cga aaa tct caa 390
 Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys Val Arg Lys Ser Gln
 105 110 115

cgt tct cgt caa aag aag act aca taagagacca cttcaccaat aagtattctg 444
 Arg Ser Arg Gln Lys Lys Thr Thr
 120 125

tgtaaataat	gttctatattt	aattataaccg	ctatcattcc	aaaggaggat	ggcatataat	504
acaaaggctt	attaatttga	ctagaaaatt	taaaacatta	ctctgaaatt	gtaactaaag	564
ttagaaagt	gatttttaaga	atccaaacgt	taagaattgt	taaaggctat	gattgtcttt	624
gttcttctac	cacccaccag	ttgaatttca	tcatgcttaa	ggccatgatt	ttagcaatac	684
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cctaagcctg	ttagcatgct	ggtagagcaa	gcagtttgaa	attgagctgg	acctcaccaa	864
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aaagactaca	tattgtcact	gacacacacg	ttataatcat	ttatcatata	tatacataca	2424
tgcatacact	ctcaaagcaa	ataatttttc	acttcaaaac	agtattgact	tgtatacctt	2484
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 1 5 10

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<400> 41

Glu Ile Cys Leu Asp Pro Glu Ala Pro Phe Leu Lys
 1 5 10

<210> 42
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 42

Gln Val Cys Ala Asp Pro Ser Glu Glu Trp Val Gln
 1 5 10

<210> 43
 <211> 12
 <212> PRT
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<400> 43

Gln Val Cys Ala Asp Pro Ser Glu Ser Trp Val Gln
 1 5 10

<210> 44
 <211> 12
 <212> PRT
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<400> 44

Gln Val Cys Ala Asp Pro Ser Glu Ser Trp Val Gln
 1 5 10

<210> 45
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 45

Met	Lys	Lys	Ser	Gly	Val	Leu	Phe	Leu	Leu	Gly	Ile	Ile	Leu	Leu	Val
1				5				10					15		
Leu	Ile	Gly	Val	Gln	Gly	Thr	Pro	Val	Val	Arg	Lys	Gly	Arg	Cys	Ser
			20					25					30		
Cys	Ile	Ser	Thr	Asn	Gln	Gly	Thr	Ile	His	Leu	Gln	Ser	Leu	Lys	Asp
		35					40					45			
Leu	Lys	Gln	Phe	Ala	Pro	Ser	Pro	Ser	Cys	Glu	Lys	Ile	Glu	Ile	Ile
	50					55				60					
Ala	Thr	Leu	Lys	Asn	Gly	Val	Gln	Thr	Cys	Leu	Asn	Pro	Asp	Ser	Ala
65				70					75					80	
Asp	Val	Lys	Glu	Leu	Ile	Lys	Lys	Trp	Glu	Lys	Gln	Val	Ser	Gln	Lys
			85					90					95		
Lys	Lys	Gln	Lys	Asn	Gly	Lys	Lys	His	Gln	Lys	Lys	Lys	Val	Leu	Lys
			100				105						110		
Val	Arg	Lys	Ser	Gln	Arg	Ser	Arg	Gln	Lys	Lys	Thr	Thr			
		115					120					125			

<210> 46
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 46

Met	Ser	Leu	Arg	Leu	Asp	Thr	Thr	Pro	Ser	Cys	Asn	Ser	Ala	Arg	Pro
1				5					10					15	
Leu	His	Ala	Leu	Gln	Val	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Leu	Thr	Ala
			20					25					30		
Leu	Ala	Ser	Ser	Thr	Lys	Gly	Gln	Thr	Lys	Arg	Asn	Leu	Ala	Lys	Gly
		35				40					45				
Lys	Glu	Glu	Ser	Leu	Asp	Ser	Asp	Leu	Tyr	Ala	Glu	Leu	Arg	Cys	Met
	50				55						60				
Cys	Ile	Lys	Thr	Thr	Ser	Gly	Ile	His	Pro	Lys	Asn	Ile	Gln	Ser	Leu
65					70				75					80	
Glu	Val	Ile	Gly	Lys	Gly	Thr	His	Cys	Asn	Gln	Val	Glu	Val	Ile	Ala
			85					90						95	
Thr	Leu	Lys	Asp	Gly	Arg	Lys	Ile	Cys	Leu	Asp	Pro	Asp	Ala	Pro	Arg
			100					105					110		
Ile	Lys	Lys	Ile	Val	Gln	Lys	Lys	Leu	Ala	Gly	Asp	Glu	Ser	Ala	Asp
		115					120					125			

<210> 47
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 47

Met	Gln	Ile	Ile	Thr	Thr	Ala	Leu	Val	Cys	Leu	Leu	Leu	Ala	Gly	Met
1				5					10					15	
Trp	Pro	Glu	Asp	Val	Asp	Ser	Lys	Ser	Met	Gln	Val	Pro	Phe	Ser	Arg
			20					25					30		
Cys	Cys	Phe	Ser	Phe	Ala	Glu	Gln	Glu	Ile	Pro	Leu	Arg	Ala	Ile	Leu
		35				40					45				
Cys	Tyr	Arg	Asn	Thr	Ser	Ser	Ile	Cys	Ser	Asn	Glu	Gly	Leu	Ile	Phe
	50				55					60					
Lys	Leu	Lys	Arg	Gly	Lys	Glu	Ala	Cys	Ala	Leu	Asp	Thr	Val	Gly	Trp
65				70					75					80	
Val	Gln	Arg	His	Arg	Lys	Met	Leu	Arg	His	Cys	Pro	Ser	Lys	Arg	Lys
			85					90						95	

<210> 48
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 48

Met	Lys	Ile	Ser	Val	Ala	Ala	Ile	Pro	Phe	Phe	Leu	Leu	Ile	Thr	Ile
1				5					10					15	
Ala	Leu	Gly	Thr	Lys	Thr	Glu	Ser	Ser	Ser	Arg	Gly	Pro	Tyr	His	Pro
			20				25					30			
Ser	Glu	Cys	Cys	Phe	Thr	Tyr	Thr	Thr	Tyr	Lys	Ile	Pro	Arg	Gln	Arg

	35					40				45									
Ile	Met	Asp	Tyr	Tyr	Glu	Thr	Asn	Ser	Gln	Cys	Ser	Lys	Pro	Gly	Ile				
50						55					60								
Val	Phe	Ile	Thr	Lys	Arg	Gly	His	Ser	Val	Cys	Thr	Asn	Pro	Ser	Asp				
65					70					75					80				
Lys	Trp	Val	Gln	Asp	Tyr	Ile	Lys	Asp	Met	Lys	Glu	Asn							
			85						90										

<210> 49
 <211> 93
 <212> PRT
 <213> Homo sapiens

Met	Gln	Val	Ser	Thr	Ala	Ala	Leu	Ala	Val	Leu	Leu	Cys	Thr	Met	Ala				
1				5					10					15					
Leu	Cys	Asn	Gln	Val	Leu	Ser	Ala	Pro	Leu	Ala	Ala	Asp	Thr	Pro	Thr				
			20					25					30						
Ala	Cys	Cys	Phe	Ser	Tyr	Thr	Ser	Arg	Gln	Ile	Pro	Gln	Asn	Phe	Ile				
		35					40					45							
Ala	Asp	Tyr	Phe	Glu	Thr	Ser	Ser	Gln	Cys	Ser	Lys	Pro	Ser	Val	Ile				
50					55					60									
Phe	Leu	Thr	Lys	Arg	Gly	Arg	Gln	Val	Cys	Ala	Asp	Pro	Ser	Glu	Glu				
65				70					75					80					
Trp	Val	Gln	Lys	Tyr	Val	Ser	Asp	Leu	Glu	Leu	Ser	Ala							
			85						90										

<210> 50
 <211> 98
 <212> PRT
 <213> Homo sapiens

Met	Lys	Val	Ser	Ala	Val	Leu	Leu	Cys	Leu	Leu	Leu	Met	Thr	Ala	Ala				
1				5					10					15					
Phe	Asn	Pro	Gln	Gly	Leu	Ala	Gln	Pro	Asp	Ala	Leu	Asn	Val	Pro	Ser				
			20					25					30						
Thr	Cys	Cys	Phe	Thr	Phe	Ser	Ser	Lys	Lys	Ile	Ser	Leu	Gln	Arg	Leu				
		35					40					45							
Lys	Ser	Tyr	Val	Ile	Thr	Thr	Ser	Arg	Cys	Pro	Gln	Lys	Ala	Val	Ile				
50					55					60									
Phe	Arg	Thr	Lys	Leu	Gly	Lys	Glu	Ile	Cys	Ala	Asp	Pro	Lys	Glu	Lys				
65				70					75					80					
Trp	Val	Gln	Asn	Tyr	Met	Lys	His	Leu	Gly	Arg	Lys	Ala	His	Thr	Leu				
			85						90					95					

Lys Thr

<210> 51
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 <222> (54)...(344)

<400> 51

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 Lys Val Ser Ala Ala Leu Leu Trp Leu Leu Leu Ile Ala Ala Ala Phe
 5 10 15

agc ccc cag ggg ctc gct ggg cca gct tct gtc cca acc acc tgc tgc 152
 Ser Pro Gln Gly Leu Ala Gly Pro Ala Ser Val Pro Thr Thr Cys Cys
 20 25 30

ttt aac ctg gcc aat agg aag ata ccc ctt cag cga cta gag agc tac 200
 Phe Asn Leu Ala Asn Arg Lys Ile Pro Leu Gln Arg Leu Glu Ser Tyr
 35 40 45

agg aga atc acc agt ggc aaa tgt ccc cag aaa gct gtg atc ttc aag 248
 Arg Arg Ile Thr Ser Gly Lys Cys Pro Gln Lys Ala Val Ile Phe Lys
 50 55 60 65

acc aaa ctg gcc aag gat atc tgt gcc gac ccc aag aag aag tgg gtg 296
 Thr Lys Leu Ala Lys Asp Ile Cys Ala Asp Pro Lys Lys Lys Trp Val
 70 75 80

cag gat tcc atg aag tat ctg gac caa aaa tct cca act cca aag cca 344
 Gln Asp Ser Met Lys Tyr Leu Asp Gln Lys Ser Pro Thr Pro Lys Pro
 85 90 95

taaataatca ccatttttga aaccaaacca gagcctgagt gttgcctaata ttgttttccc 404
 ttcttacaat gcattctgag gtaacctcat tatcagttcca aaggccatgg gttttattat 464
 atatataatat atatattttt ttttaaaaaa aaacgtattg catttaattt attgaggctt 524
 taaaacttat cctccatgaa tatcagttat ttttaaactg taaagctttg tgcagattct 584
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 ttgttcttgt gaacccaaag tgtgactcat taaatggaag taatgttggt tttaggaatac 764
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 actgagctga gggggg 839

<210> 52
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 52

Met Ser Leu Leu Ser Ser Arg Ala Ala Arg Val Pro Gly Pro Ser Ser
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 Ser Leu Cys Ala Leu Leu Val Leu Leu Leu Leu Thr Gln Pro Gly
 20 25 30

Pro Ile Ala Ser Ala Gly Pro Ala Ala Ala Val Leu Arg Glu Leu Arg
 35 40 45
 Cys Val Cys Leu Gln Thr Thr Gln Gly Val His Pro Lys Met Ile Ser
 50 55 60
 Asn Leu Gln Val Phe Ala Ile Gly Pro Gln Cys Ser Lys Val Glu Val
 65 70 75 80
 Val Ala Ser Leu Lys Asn Gly Lys Glu Ile Cys Leu Asp Pro Glu Ala
 85 90 95
 Pro Phe Leu Lys Lys Val Ile Gln Lys Ile Leu Asp Gly Gly Asn Lys
 100 105 110
 Glu Asn

<210> 53
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 53
 Met Ala Arg Ala Thr Leu Ser Ala Ala Pro Ser Asn Pro Arg Leu Leu
 1 5 10 15
 Arg Val Ala Leu Leu Leu Leu Leu Val Ala Ala Ser Arg Arg Ala
 20 25 30
 Ala Gly Ala Pro Leu Ala Thr Glu Leu Arg Cys Gln Cys Leu Gln Thr
 35 40 45
 Leu Gln Gly Ile His Leu Lys Asn Ile Gln Ser Val Lys Val Lys Ser
 50 55 60
 Pro Gly Pro His Cys Ala Gln Thr Glu Val Ile Ala Thr Leu Lys Asn
 65 70 75 80
 Gly Gln Lys Ala Cys Leu Asn Pro Ala Ser Pro Met Val Lys Lys Ile
 85 90 95
 Ile Glu Lys Met Leu Lys Asn Gly Lys Ser Asn
 100 105

<210> 54
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 54
 Met Asn Pro Ser Ala Ala Val Ile Phe Cys Leu Ile Leu Leu Gly Leu
 1 5 10 15
 Ser Gly Thr Gln Gly Ile Pro Leu Ala Arg Thr Val Arg Cys Asn Cys
 20 25 30
 Ile His Ile Asp Asp Gly Pro Val Arg Met Arg Ala Ile Gly Lys Leu
 35 40 45
 Glu Ile Ile Pro Ala Ser Leu Ser Cys Pro Arg Val Glu Ile Ile Ala
 50 55 60
 Thr Met Lys Lys Asn Asp Glu Gln Arg Cys Leu Asn Pro Glu Ser Lys
 65 70 75 80
 Thr Ile Lys Asn Leu Met Lys Ala Phe Ser Gln Lys Arg Ser Lys Arg
 85 90 95
 Ala Pro

<210> 55
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 <212> DNA
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<220>
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 <222> (18) ... (338)

<400> 55

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Met Ala Arg Ala Ala Leu Ser Ala Ala Pro Ser	
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aat ccc cgg ctc ctg cga gtg gca ctg ctg ctc ctg ctc ctg gta gcc	98
Asn Pro Arg Leu Leu Arg Val Ala Leu Leu Leu Leu Leu Val Ala	
15 20 25	
gct ggc cgg cgc gca gca gga gcg tcc gtg gcc act gaa ctg cgc tgc	146
Ala Gly Arg Arg Ala Ala Gly Ala Ser Val Ala Thr Glu Leu Arg Cys	
30 35 40	
cag tgc ttg cag acc ctg cag gga att cac ccc aag aac atc caa agt	194
Gln Cys Leu Gln Thr Leu Gln Gly Ile His Pro Lys Asn Ile Gln Ser	
45 50 55	
gtg aac gtg aag tcc ccc gga ccc cac tgc gcc caa acc gaa gtc ata	242
Val Asn Val Lys Ser Pro Gly Pro His Cys Ala Gln Thr Glu Val Ile	
60 65 70 75	
gcc aca ctc aag aat ggg cgg aaa gct tgc ctc aat cct gca tcc ccc	290
Ala Thr Leu Lys Asn Gly Arg Lys Ala Cys Leu Asn Pro Ala Ser Pro	
80 85 90	
ata gtt aag aaa atc atc gaa aag atg ctg aac agt gac aaa tcc aac	338
Ile Val Lys Lys Ile Ile Glu Lys Met Leu Asn Ser Asp Lys Ser Asn	
95 100 105	
tgaccagaag ggaggaggaa gctcactggt ggctgttctt gaaggaggcc ctgcccttat	398
aggaacagaa gaggaaagag agacacagct gcagaggcca cctggattgt gcctaattgt	458
tttgagcatc gcttaggaga agtcttctat ttattttatt attcattagt tttgaagatt	518
ctatgttaat attttaggtg taaaataatt aagggtatga ttaactctac ctgcacactg	578
tcctattata ttcattcttt ttgaaatgtc aaccccaagt tagttcaatc tggattcata	638
tttaatttga aggtagaatg ttttcaaattg ttctccagtc attatgttaa tatttctgag	698
gagcctgcaa catgccagcc actgtgatag aggctggcgg atccaagcaa atggccaatg	758
agatcattgt gaaggcaggg gaatgtatgt gcacatctgt tttgtaactg tttagatgaa	818
tgtcagttgt tattttattga aatgatttca cagtgtgtgg tcaacatttc tcatgttgaa	878
actttaagaa ctaaaatgtt ctaaatatcc cttggacatt ttatgtcttt cttgtaaggc	938
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tattgatgtt ttcatagaga atataaaaat aaagcactta tag	1041

<210> 56
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 <212> PRT
 <213> Homo sapiens

<400> 56
 Met Asn Ala Lys Val Val Val Val Leu Val Leu Val Leu Thr Ala Leu
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 Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys
 20 25 30
 Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys His Leu Lys
 35 40 45
 Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys
 50 55 60
 Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
 65 70 75 80
 Glu Tyr Leu Glu Lys Ala Leu Asn Lys Arg Phe Lys Met
 85 90

<210> 57
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 57
 Met Ala Arg Ala Ala Leu Ser Ala Ala Pro Ser Asn Pro Arg Leu Leu
 1 5 10 15
 Arg Val Ala Leu Leu Leu Leu Leu Val Ala Ala Gly Arg Arg Ala
 20 25 30
 Ala Gly Ala Ser Val Ala Thr Glu Leu Arg Cys Gln Cys Leu Gln Thr
 35 40 45
 Leu Gln Gly Ile His Pro Lys Asn Ile Gln Ser Val Asn Val Lys Ser
 50 55 60
 Pro Gly Pro His Cys Ala Gln Thr Glu Val Ile Ala Thr Leu Lys Asn
 65 70 75 80
 Gly Arg Lys Ala Cys Leu Asn Pro Ala Ser Pro Ile Val Lys Lys Ile
 85 90 95
 Ile Glu Lys Met Leu Asn Ser Asp Lys Ser Asn
 100 105

<210> 58
 <211> 1560
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (102)...(398)

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 ggaagaaacc accggaagga accatctcac tgtgtgtaaa c atg act tcc aag ctg
 Met Thr Ser Lys Leu

60
 116

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 Ala Val Ala Leu Leu Ala Ala Phe Leu Ile Ser Ala Ala Leu Cys Glu
 10 15 20
 ggt gca gtt ttg sca agg agt gct aaa gaa ctt aga tgt cag tgc ata 212
 Gly Ala Val Leu Pro Arg Ser Ala Lys Glu Leu Arg Cys Gln Cys Ile
 25 30 35
 aag aca tac tcc aaa cct ttc cac ccc aaa ttt atc aaa gaa ctg aga 260
 Lys Thr Tyr Ser Lys Pro Phe His Pro Lys Phe Ile Lys Glu Leu Arg
 40 45 50
 gtg att gag agt gga cca cac tgc gcc aac aca gaa att att gta aag 308
 Val Ile Glu Ser Gly Pro His Cys Ala Asn Thr Glu Ile Ile Val Lys
 55 60 65
 ctt tct gat gga aga gag ctc tgt ctg gac ccc aag gaa aac tgg gtg 356
 Leu Ser Asp Gly Arg Glu Leu Cys Leu Asp Pro Lys Glu Asn Trp Val
 70 75 80 85
 cag agg gtt gtg gag aag ttt ttg aag agg gct gag aat tca 398
 Gln Arg Val Val Glu Lys Phe Leu Lys Arg Ala Glu Asn Ser
 90 95
 taaaaaaatt cattctctgt ggtatccaag aatcagtgaa gatgcagtg aaacttcaag 458
 caaatctact tcaacacttc atgtattgtg tgggtctgtt gtagggttgc cagatgcaat 518
 acaagattcc tgggttaaatt tgaatttcag taaacaatga atagtttttc attgtaccat 578
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<212> PRT

<213> Homo sapiens

<400> 59

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1 5 10

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1 5 10 15

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1 5 10

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1 5 10

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1 5 10 15

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<210> 74
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<210> 76
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 Met Lys Val Ser Ala Ala Leu

52

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 Leu Cys Leu Leu Leu Ile Ala Ala Thr Phe Ile Pro Gln Gly Leu Ala
 10 15 20

cag cca gat gca atc aat gcc cca gtc acc tgc tgc tat aac ttc acc 148
 Gln Pro Asp Ala Ile Asn Ala Pro Val Thr Cys Cys Tyr Asn Phe Thr
 25 30 35

aat agg aag atc tca gtg cag agg ctc gcg agc tat aga aga atc acc 196
 Asn Arg Lys Ile Ser Val Gln Arg Leu Ala Ser Tyr Arg Arg Ile Thr
 40 45 50 55

agc agc aag tgt ccc aaa gaa gct gtg atc ttc aag acc att gtg gcc 244
 Ser Ser Lys Cys Pro Lys Glu Ala Val Ile Phe Lys Thr Ile Val Ala
 60 65 70

aag gag atc tgt gct gac ccc aag cag aag tgg gtt cag gat tcc atg 292
 Lys Glu Ile Cys Ala Asp Pro Lys Gln Lys Trp Val Gln Asp Ser Met
 75 80 85

gac cac ctg gac aag caa acc caa act cgg aag act tga acactcactc 341
 Asp His Leu Asp Lys Gln Thr Gln Thr Pro Lys Thr *
 90 95

cacaacccaa gaatctgcag ctaacttatt ttcccctagc tttccccaga catcctgttt 401
 tattttatta taatgaattt tgtttgttga tgtgaaacat tatgccttaa gtaatgttaa 461
 ttcttattta agttattgat gttttaagtt tatctttcat ggtactagt ttttttagat 521
 acagagactt ggggaaattg cttttcctct tgaaccacag ttctaccctt gggatgtttt 581
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 aaaatattat tgtggaaatg 661

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<211> 1847

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (80)...(346)

<400> 77

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 Met Asn Ala Lys Val Val Val Val Leu Val Leu
 1 5 10

gtg ctg acc gcg ctc tgc ctc agc gac ggg aag ccc gtc agc ctg agc 160
 Val Leu Thr Ala Leu Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser
 15 20 25

tac aga tgc cca tgc cga ttc ttc gaa agc cat gtt gcc aga gcc aac 208

Tyr	Arg	Cys	Pro	Cys	Arg	Phe	Phe	Glu	Ser	His	Val	Ala	Arg	Ala	Asn	
		30					35					40				
gtc	aag	cat	ctc	aaa	att	ctc	aac	act	cca	aac	tgt	gcc	ctt	cag	att	256
Val	Lys	His	Leu	Lys	Ile	Leu	Asn	Thr	Pro	Asn	Cys	Ala	Leu	Gln	Ile	
	45					50					55					
gta	gcc	cgg	ctg	aag	aac	aac	aac	aga	caa	gtg	tgc	att	gac	ccg	aag	304
Val	Ala	Arg	Leu	Lys	Asn	Asn	Asn	Arg	Gln	Val	Cys	Ile	Asp	Pro	Lys	
	60				65				70						75	
cta	aag	tgg	att	cag	gag	tac	ctg	gag	aaa	gct	tta	aac	aag			346
Leu	Lys	Trp	Ile	Gln	Glu	Tyr	Leu	Glu	Lys	Ala	Leu	Asn	Lys			
			80					85								
taagcacaac	agccaaaaaag	gactttccgc	tagaccact	cgaggaaaac	taaaaccttg											406
tgagagatga	aagggcaaag	acgtggggga	gggggcctta	accatgagga	ccaggtgtgt											466
gtgtggggtg	ggcacattga	tctgggatcg	ggcctgaggt	ttgcagcatt	tagaccctgc											526
atztatagca	tacggtatga	tattgcagct	tatatccatc	catgccctgt	acctgtgcac											586
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caagcagtta	gttccttcat	gatcatcaca	atcatcatca	ttctcattct	cattttttta											706
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cattttttta	tatatatttt	tgtgcacatt	tttttttacg	attctttaga	aaacaatgt											1606
atttcaaaat	atatttatag	tcgaacaagt	catatatatg	aatgagagcc	atatgaatgt											1666
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 <211> 1160
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (27) ... (299)

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Met Lys Val Ser Ala Ala Arg Leu Ala
1 5

gtc atc ctc att gct act gcc ctc tgc gct cct gca tct gcc tcc cca 101
Val Ile Leu Ile Ala Thr Ala Leu Cys Ala Pro Ala Ser Ala Ser Pro
10 15 20 25

tat tcc tcg gac acc aca ccc tgc tgc ttt gcc tac att gcc cgc cca 149
Tyr Ser Ser Asp Thr Thr Pro Cys Cys Phe Ala Tyr Ile Ala Arg Pro
30 35 40

ctg ccc cgt gcc cac atc aag gag tat ttc tac acc agt ggc aag tgc 197
Leu Pro Arg Ala His Ile Lys Glu Tyr Phe Tyr Thr Ser Gly Lys Cys
45 50 55

tcc aac cca gca gtc gtc ttt gtc acc cga aag aac cgc caa gtg tgt 245
Ser Asn Pro Ala Val Val Phe Val Thr Arg Lys Asn Arg Gln Val Cys
60 65 70

gcc aac cca gag aag aaa tgg gtt cgg gag tac atc aac tct ttg gag 293
Ala Asn Pro Glu Lys Lys Trp Val Arg Glu Tyr Ile Asn Ser Leu Glu
75 80 85

atg agc taggatggag agtccttgaa cctgaactta cacaaatttg cctgtttctg 349
Met Ser
90

cttgctcttg tcttagcttg ggaggcttcc cctcactatc ctaccccacc cgctccttga 409
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<211> 696
<212> DNA
<213> Homo sapiens

<220>
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<222> (109)...(384)

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Met Lys Leu
1

tgc gtg act gtc ctg tct ctc ctc atg cta gta gct gcc ttc tgc tct 165
Cys Val Thr Val Leu Ser Leu Leu Met Leu Val Ala Ala Phe Cys Ser
5 10 15

cca gcg ctc tca gca cca atg ggc tca gac cct ccc acc gcc tgc tgc 213
Pro Ala Leu Ser Ala Pro Met Gly Ser Asp Pro Pro Thr Ala Cys Cys
20 25 30 35

ttt tct tac acc gcg agg aag ctt cct cgc aac ttt gtg gta gat tac 261
Phe Ser Tyr Thr Ala Arg Lys Leu Pro Arg Asn Phe Val Val Asp Tyr
40 45 50

tat gag acc agc agc ctc tgc tcc cag cca gct gtg gta ttc caa acc 309
Tyr Glu Thr Ser Ser Leu Cys Ser Gln Pro Ala Val Val Phe Gln Thr
55 60 65

aaa aga agc aag caa gtc tgt gct gat ccc agt gaa tcc tgg gtc cag 357
Lys Arg Ser Lys Gln Val Cys Ala Asp Pro Ser Glu Ser Trp Val Gln
70 75 80

gag tac gtg tat gac ctg gaa ctg aac tgagctgtc agagacagga 404
Glu Tyr Val Tyr Asp Leu Glu Leu Asn
85 90

agtcttcagg gaaggtcacc tgagcccgga tgctttctcca tgagacacat ctctccata 464
ctcaggactc ctctccgcag ttctgttccc ttctcttaat ttaattctttt ttatgtgccg 524
tggtattgta ttaggtgtca ttccattat ttatattagt ttagcctaaag gataagtgtc 584
ctatggggat ggtccactgt cactgtttct ctgctgttgc aaataatgg ataacacatt 644
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<212> DNA
<213> Homo sapiens

<220>
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<222> (123)...(353)

<400> 80

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aggtttctgc agcgttctg tgctgtctgc tcatggcagc cactttcagc cctcagggac 120
tt gct cag cca gat tca gtt tcc att cca atc acc tgc tgc ttt aac 167
Ala Gln Pro Asp Ser Val Ser Ile Pro Ile Thr Cys Cys Phe Asn
1 5 10 15

gtg atc aat agg aaa att cct atc cag agg ctg gag agc tac aca aga 215
Val Ile Asn Arg Lys Ile Pro Ile Gln Arg Leu Glu Ser Tyr Thr Arg
20 25 30

atc acc aac atc caa tgt ccc aag gaa gct gtg atc ttc aag acc caa	263
Ile Thr Asn Ile Gln Cys Pro Lys Glu Ala Val Ile Phe Lys Thr Gln	
35 40 45	
cgg ggc aag gag gtc tgt gct gac ccc aag gag aga tgg gtc agg gat	311
Arg Gly Lys Glu Val Cys Ala Asp Pro Lys Glu Arg Trp Val Arg Asp	
50 55 60	
tcc atg aag cat ctg gac caa ata ttt caa aat ctg aag cca	353
Ser Met Lys His Leu Asp Gln Ile Phe Gln Asn Leu Lys Pro	
65 70 75	
tgagccttca tacatggact gagagtcaga gcttgaagaa aagcttattt attttcccca	413
acctccccc ggtgcagtgt gacattattt tattataaca tccacaaaga gattattttt	473
aaataattta aagcataata tttcttaaaa agtattttaat tatatttaag ttgttgatgt	533
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tccaaagctt tgaacattca tgactgaact gaaaacaagc catgacttga gaaacaaata	1553
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cctgctcaga atcatgcagg tctccactgc tgcccttgct gtcctcctct gcaccatggc	2093
tctctgcaac cagttctctg catcacttgc tgctgacacg ccgaccgcct gctgcttcag	2153
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gcagtcatgg caccaaagcc accagactga caaatgtgta tcggatgctt ttgttcaggg	2693
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 <212> DNA
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<220>
 <221> CDS
 <222> (329)...(625)

<400> 81

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gtaatcttac	taagagctaa	tagaaaggct	aggaccaaac	cagaaacctc	caattctcat	300
gtggaagccc	atgccctcac	cctccaac	atg aaa gcc tct gca gca	ctt ctg		352
		Met Lys Ala Ser Ala Ala	Leu Leu			
		1	5			
tgt ctg ctg ctc	aca gca gct gct	ttc agc ccc	cag ggg ctt	gct cag		400
Cys Leu Leu Leu	Thr Ala Ala Ala	Phe Ser Pro	Gln Gly Leu	Ala Gln		
10	15	20				
cca gtt ggg att	aat act tca act	acc tgc tgc	tac aga ttt	atc aat		448
Pro Val Gly Ile	Asn Thr Ser Thr	Thr Cys Cys	Tyr Arg Phe	Ile Asn		
25	30	35		40		
aag aaa atc cct	aag cag agg ctg	gag agc tac	aga agg acc	acc agt		496
Lys Lys Ile Pro	Lys Gln Arg Leu	Glu Ser Tyr	Arg Arg Thr	Thr Ser		
	45	50		55		
agc cac tgt ccc	cgg gaa gct gta	atc ttc aag	acc aaa ctg	gac aag		544
Ser His Cys Pro	Arg Glu Ala Val	Ile Phe Lys	Thr Lys Leu	Asp Lys		
	60	65	70			
gag atc tgt gct	gac ccc aca cag	aag tgg gtc	cag gac ttt	atg aag		592
Glu Ile Cys Ala	Asp Pro Thr Gln	Lys Trp Val	Gln Asp Phe	Met Lys		
75	80	85				
cac ctg gac aag	aaa acc caa act	cca aag ctt	tgaacattca	tgactgaact		645
His Leu Asp Lys	Lys Thr Gln Thr	Pro Lys Leu				
90	95					
gaaaacaagc	catgacttga	gaaacaaata	atattgtatac	cctgtccttt	ctcagagtgg	705
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gcaaagattt	gctttaattg	ttaagatatg	atgtccctat	ggaagcatat	tgattattata	1005
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 Met Gln Val Ser Thr Ala Ala Leu Ala Val
 1 5 10

ctc ctc tgc acc atg gct ctc tgc aac cag ttc tct gca tca ctt gct 161
 Leu Leu Cys Thr Met Ala Leu Cys Asn Gln Phe Ser Ala Ser Leu Ala
 15 20 25

gct gac acg ccg acc gcc tgc tgc ttc agc tac acc tcc cgg cag att 209
 Ala Asp Thr Pro Thr Ala Cys Cys Phe Ser Tyr Thr Ser Arg Gln Ile
 30 35 40

cca cag aat ttc ata gct gac tac ttt gag acg agc agc cag tgc tcc 257
 Pro Gln Asn Phe Ile Ala Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser
 45 50 55

aag ccc ggt gtc atc ttc cta acc aag cga agc cgg cag gtc tgt gct 305
 Lys Pro Gly Val Ile Phe Leu Thr Lys Arg Ser Arg Gln Val Cys Ala
 60 65 70

gac ccc agt gag gag tgg gtc cag aaa tat gtc agc gac ctg gag ctg 353
 Asp Pro Ser Glu Glu Trp Val Gln Lys Tyr Val Ser Asp Leu Glu Leu
 75 80 85 90

agt gcc tgaggggtcc agaagcttcg aggcccagcg acctcggtgg gccagtgagg 409
 Ser Ala

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Phe	Asn	Pro	Gln	Gly	Leu	Ala	Gln	Pro	Asp	Ala	Leu	Asn	Val	Pro	Ser
			20					25					30		
Thr	Cys	Cys	Phe	Thr	Phe	Ser	Ser	Lys	Lys	Ile	Ser	Leu	Gln	Arg	Leu
		35					40					45			
Lys	Ser	Tyr	Val	Ile	Thr	Thr	Ser	Arg	Cys	Pro	Gln	Lys	Ala	Val	Ile
	50					55					60				
Phe	Arg	Thr	Lys	Leu	Gly	Lys	Glu	Ile	Cys	Ala	Asp	Pro	Lys	Glu	Lys
65					70					75					80
Trp	Val	Gln	Asn	Tyr	Met	Lys	His	Leu	Gly	Arg	Lys	Ala	His	Thr	Leu
				85					90					95	
Lys	Thr														



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